

PATENT

Serial No. 09/286,027

Amendment in Reply to Final Office Action of April 14, 2004

IN THE SPECIFICATION

Please amend the specification as follows:

Replace the paragraph on page 1, between lines 1-19 of the specification with the following:

The invention relates to a device and method as recited in the preamble of Claim 1 for controlling antenna patterns of a portable communication device. Such portable devices, in particular mobile phones, have become a household word. In operation, such devices generally communicate with a remote base station, of which the geographical location will not be known a priori. Systems have been used with cellular terrestrial base stations, as well as with satellites. A first operational parameter of such system is the electromagnetic field strength from the base station at the position of the mobile phone. A second parameter is the principal direction of the received field vector; this indicates an apparent origin direction of the base station, which through various environmental causes may differ from the real origin direction. Optimum reception depends on this orientation relative to the antenna reception sensitivity pattern. A third parameter is the

PATENT

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principal axis of the emitted field vector from the phone itself. Optimum reception of the transmitted signals in both directions requires that the origin direction and the principal axis should coincide with each other, and also regarding an optimum viz à viz antenna configurations. Another wish is that radiation emitted by the device should as much as possible be directed away from the head or other relevant part of a human user, or other nearby absorbing physical matter or obstacles during actual operation of the phone. Depending on the orientation of the device, certain ones of the above requirements may be in conflict.

Replace the paragraph spanning pages 1-2 between page 1, line 22, and page 2, line 8 of the specification with the following:

In consequence, amongst other things, it is an object of the present invention to exclude or at least defer during an actual transmitting state the usage of one or more operation modes that would send major amounts of energy towards such physical matter or obstacles. Now therefore, according to one of its aspects, the invention ~~is characterized as recited in the characterizing part of~~ Claim 1 includes a portable communication device having a control device that includes a detector for discriminating between a

PATENT

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transmitting state and a receiving state of the communication device, and based on such states, effecting various non-uniform antenna patterns. The non-uniform selection patterns may imply that certain directivity configurations are forbidden in a particular state, in particular in a transmitting state. Another implementation is that the sequence in which the various directivity patterns are suggested to a user depends on the state of the device. A further implementation is that "bad" pattern may only be called for by a user through overruling a standard selection procedure. A still further implementation has a "bad" pattern attenuated by a certain factor. The transmitting state is usually restricted to an actual communication session. Alternatively, outside such session the device may periodically send brief signals to enable a set of base stations to track the changing position of the device as it may cross through various cells of a cellular system. A receiving state may either generally prevail only outside such session, or during a communication session alternate on the basis of utterances produced by a user.